

REMARKS

In the Office Action, Claims 25 and 27 were rejected under 35 U.S.C. § 103(a) over U.S. Patent No. 5,896,203 (Shibata) and U.S. Publication No. 2004/0083260 (Kobayashi '260). Claims 26 and 28 were rejected under § 103(a) over Shibata, Kobayashi '260 and U.S. Publication No. 2002/0051212 (Kobayashi '212). The rejections are respectfully traversed, as discussed more fully below.

Independent Claims 25 and 27 generally concern managing data in multiple formats. An original is scanned, and a first image data is generated in a first data format which is a RAW format. In addition, second image data is generated from the first image data, in a second data format other than the RAW data format. A single page management record is generated for managing the first image data and the second image data.

According to one aspect of Claims 25 and 27, the first image data and the second image data represent the same image, and the single page management record manages the second image data together in association with the first image data.

According to another aspect of Claims 25 and 27, the single page management record can be accessed in parallel by first and the second data processing units.

According to still other aspects of Claims 25 and 27, the single page management record is deleted in a case that (a) a delete request of the single page management record is received from at least one of the first data processing unit or the second data processing unit and (b) neither of the first data processing unit or the second data processing unit is referring to the single page management record.

By virtue of this arrangement, it is ordinarily possible to efficiently manage data in multiple formats while reducing memory usage.

Referring specifically to claim language, independent Claim 25 is directed to a data processing apparatus. A scanner processing unit is constructed to optically scan an original and generate a first image data in a first data format which is a RAW format, and a memory management unit is constructed to generate a single page management record for managing the first image data. The memory management unit generates the single page management record responsive to a request made by the scanner processing unit when scanning the original. An encoding unit is constructed to generate a second image data from the first image data, in a second data format other than the RAW format. The first and second image data represent the same image. A first data processing unit is constructed to execute a first predetermined processing using the first image data in the RAW format, and a second data processing unit is constructed to execute a second predetermined processing using the second image data in the second format. The memory management unit causes the single page management record to manage the second image data in association with the first image data, such that the first image data and the second image data are managed together. In addition, the memory management unit manages the single page management record so that the single page management record can be accessed in parallel by the first and the second data processing units. The memory management unit deletes the single page management record in a case that (a) a delete request of the page management record is received from at least one of the first data processing unit or the second data processing unit and (b) neither of the first data processing unit or the second data processing unit is referring to the single page management record.

Independent Claim 27 is directed to a method substantially in accordance with the apparatus of Claim 25.

The applied art is not seen to disclose or suggest the features of Claims 25 and 27, and in particular is not seen to disclose or suggest at least the features of (i) causing a single page data management record to manage first image data together in association with second image data in a second format, wherein the first and second image data represent the same image, (ii) managing the single page management record so that the single page management record can be accessed in parallel by first and second data processing units, and (iii) deleting the single page data management record in a case that (a) a delete request of the page management record is received from at least one of a first data processing unit or a second data processing unit and (b) neither of the first data processing unit or the second data processing unit is referring to the page management record.

In that regard, the Office Action relies on Shibata (Column 9, lines 12 to 30 and 40 to 41) for a single page data management record which manages first image data together in association with second image data, but concedes that Shibata does not disclose that the first and second image data represent the same image. Meanwhile, the Office Action relies on Kobayashi '260 (paragraphs [0231] to [0234]) for first and second image data representing the same image.

However, even assuming *arguendo* that the Office Action's characterizations of Shibata and Kobayashi '260 are correct, the proposed combination would render Shibata unsuitable for its intended purpose.

In particular, Shibata is seen to manage facsimile data on a page-by-page basis, and concededly does not disclose first and second image data representing the same image. See, e.g., Shibata, Column 9, lines 5 to 55. Thus, first and second image data in Shibata would consist of different pages, e.g., a page 1 and a page 2. Modifying Shibata such that the first and second image data represent the same image, as allegedly suggested by Kobayashi '260, would destroy the unique data of either page 1 or page 2. Put another way, if the image data of a page 2 in Shibata were to be modified to be the same image as page 1, the original information contained in page 2 would be lost.

Thus, the applied art is not seen to disclose causing a single page data management record to manage first image data together in association with second image data in a second format, wherein the first and second image data represent the same image.

Meanwhile, page 4 of the Office Action concedes that Shibata does not disclose managing the single page management record so that the single page management record can be accessed in parallel by first and second data processing units.

Nevertheless, the Office Action relies on Kobayashi '260 (paragraphs [0233] and [0234]) for this feature. As understood by Applicants, Kobayashi '260 is directed to executing a first kind of process by requesting a server and executing a second kind of process without linkage to the server. See Kobayashi '260, Abstract.

The cited portions of Kobayashi '260 disclose generating several types of images, such as an image for a scanner and a separate image for a fax machine. See Kobayashi '260, paragraphs [0233] and [0234].

However, the cited portions of Kobayashi '260 are not seen to disclose or suggest that each of these different types of images are managed by a single record, much

less by a single page management record such that single page management record can be accessed in parallel by first and second data processing units.

Returning to the Office Action, pages 4 and 5 of the Office Action further concede that Shibata does not disclose deleting the single page data management record in a case that (a) a delete request of the page management record is received from at least one of a first data processing unit or a second data processing unit and (b) neither of the first data processing unit or the second data processing unit is referring to the page management record.

Nevertheless, the Office Action again relies on Kobayashi '260 (paragraphs [0233] and [0234]) for this feature.

However, the cited portions of Kobayashi '260 merely disclose deleting "the image data". See Kobayashi '260, paragraph [0234]. Thus, the cited portions of Kobayashi '260 are not seen to disclose or suggest deleting a record, much less a single page data management record. Moreover, Kobayashi '260 simply discloses deleting the image data "upon an end of all the processes". As such, Kobayashi '260 is also not seen to disclose or suggest conditioning deletion based on receipt of a delete request.

Kobayashi '212 has been reviewed and is not seen to remedy the deficiencies of Shibata and Kobayashi '260.

Therefore, independent Claims 25 and 27 are believed to be in condition for allowance, and such action is respectfully requested.

The other claims in the application are each dependent from the independent claims and are believed to be allowable over the art of record for at least the same reasons.

Because each dependent claim is deemed to define an additional aspect of the claims, however, the individual consideration of each on its own merits is respectfully requested.

No other matters being raised, the entire application is believed to be in condition for allowance, and such action is courteously solicited.

Applicants' undersigned attorney may be reached in our Costa Mesa, CA office at (714) 540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

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